

WHAT IS CLAIMED IS:

1. An on-line system for printing a value-bearing item (VBI) comprising:
a plurality of user terminals coupled to a computer network;

a digitally signed advertisement graphics to be printed next to the VBI; and

10 a cryptographic device remote from the plurality of user terminals and coupled to the computer network, wherein the cryptographic device includes a computer executable code for verifying that the advertisement graphics is authorized to be printed next to the VBI.

15 2. The system of claim 1, wherein the cryptographic device includes a computer executable code for verifying the advertisement graphics using a DSA algorithm, a public key, and a previously assigned digital signature.

20 3. The system of claim 2, wherein the computer executable code verifies if the digitally signed advertisement graphics has a correct digital signature file.

25 4. The system of claim 1, further comprising computer executable code for tracking a usage of the VBI.

30 5. The system of claim 4, wherein the usage of the VBI includes one or more of number of users signed up for the on-line system, number of users who have purchased at least a predetermined amount of VBI, number of users who have printed at least a predetermined amount of VBI, and number of users who have maintained an account for a minimum number of predetermined period.

35

1 40624/RRT/S850

6. The system of claim 1, wherein the cryptographic module includes a computer executable code for preventing unauthorized
5 modification of data.

7. The system of claim 1, wherein the cryptographic module includes a computer executable code for ensuring the proper operation of cryptographic security and VBI related meter
10 functions.

8. The system of claim 1, wherein the cryptographic module includes a computer executable code for supporting multiple concurrent users.

9. The system of claim 1, further comprising a database remote from the plurality of user terminals including information about the users.

10. The system of claim 9, further comprising a plurality of security device transaction data stored in the database for ensuring authenticity of the one or more users, wherein each security device transaction data can be processed in the server system in a stateless manner.
20

11. The system of claim 10, wherein each security device transaction data is related to a user.

12. The system of claim 11, wherein the security device transaction data related to a user is loaded into the cryptographic module when the user requests to operate on a value bearing item.
30

35

1 40624/RRT/S850

13. The system of claim 12, wherein the security device transaction data related to a user is updated and returned to the database.

14. The system of claim 1, wherein the cryptographic module performs cryptographic function on a transaction related to the database.

10

15. The system of claim 1, further comprising computer executable code for password authentication to prevent unauthorized access to the database.

15

16. The system of claim 1, wherein the cryptographic module includes a computer executable code for preventing unauthorized modification of data.

20

17. The system of claim 1, wherein the cryptographic module includes a computer executable code for ensuring the proper operation of cryptographic security and VBI related meter functions.

25

18. The system of claim 1, wherein the cryptographic module includes a computer executable code for supporting multiple concurrent users.

30

19. The system of claim 9, wherein the database includes one or more indicium data elements, data for account maintenance, and data for revenue protection.

20. The system of claim 9, wherein the database includes virtual meter information.

35

1 40624/RRT/S850

21. The system of claim 9, wherein the database includes descending register data.

5

22. The system of claim 1, wherein the value bearing item is a mail piece.

23. The system of claim 22, wherein the postal indicium
10 comprises a digital signature.

24. The system of claim 1, wherein the value bearing item is a ticket.

15 25. The system of claim 1, wherein a bar code is printed on the value bearing item.

26. The system of claim 1, wherein the value bearing item is a coupon.

20

27. The system of claim 1, wherein the value bearing item is currency.

28. The system of claim 1, wherein the value bearing item
25 is a voucher.

30

35

1 40624/RRT/S850

29. A method for printing an advertisement next to a value-bearing item (VBI) via a communication network including a client system, and a server system, the method comprising the steps of:
5 interfacing with one or more users via the client system;
communicating with the client system over the communication network;

10 digitally signing an advertisement graphics to be printed next to the VBI; and
verifying the digitally signed advertisement graphics using a cryptographic module.

30. The method of claim 29, wherein the verifying step
15 comprises the step of verifying the advertisement graphics using a DSA algorithm, a public key, and a previously assigned digital signature.

31. The method of claim 29, wherein the verifying step
20 comprises the step of verifying if the digitally signed advertisement graphics has a correct digital signature file.

32. The method of claim 29, further comprising the step of tracking a usage of the VBI.
25

33. The method of claim 32, wherein the step of tracking comprises the step of tracking a VBI usage including one or more of number of users signed up for the on-line system, number of users who have purchased at least a predetermined amount of VBI,
30 number of users who have printed at least a predetermined amount of VBI, and number of users who have maintained an account for a minimum number of predetermined period.

34. The method of claim 29, further comprising the step of
35 preventing unauthorized modification of data.

1 40624/RRT/S850

35. The method of claim 29, further comprising the step of
ensuring the proper operation of cryptographic security and VBI
5 related meter functions.

36. The method of claim 29, further comprising the step of
supporting multiple concurrent users.

10 37. The method of claim 29, further comprising the step of
including information about the users in a database remote from
the plurality of user terminals.

15 38. The method of claim 29, further comprising the step of
storing in the database a plurality of security device
transaction data for ensuring authenticity of the one or more
users, wherein each security device transaction data is processed
in the server system in a stateless manner.

20 39. The method of claim 38, wherein each security device
transaction data is related to a user.

25 40. The method of claim 39, further comprising the step of
loading the security device transaction data related to a user
into the cryptographic module when the user requests to operate
on a value bearing item.

30 41. The method of claim 29, further comprising the steps
of preventing unauthorized modification of data using the
cryptographic module.

35 42. The method of claim 29, further comprising the step of
storing data for creating one or more indicium, account
maintenance, and revenue protection.



1 40624/RRT/S850

43. The method of claim 29, further comprising the step of printing a mail piece.

5

44. The method of claim 43, wherein the mail piece includes a digital signature.

45. The method of claim 43, wherein the mail piece includes a postage amount.

10

46. The method of claim 43, wherein the mail piece includes an ascending register of used postage and descending register of available postage.

15

47. The method of claim 29, further comprising the step of printing a ticket.

48. The method of claim 29, further comprising the step of printing a bar code.

20

49. The method of claim 29, further comprising the step of printing a coupon.

25

50. The method of claim 29, further comprising the step of printing currency.

51. The method of claim 29, further comprising the step of printing a voucher.

30

35